

Photo: TSgt. Ben Blokes, USAF

maintaining the data needed, and c including suggestions for reducing	lection of information is estimated to completing and reviewing the collect this burden, to Washington Headqu uld be aware that notwithstanding an OMB control number.	ion of information. Send comments arters Services, Directorate for Infor	regarding this burden estimate mation Operations and Reports	or any other aspect of th , 1215 Jefferson Davis I	is collection of information, Highway, Suite 1204, Arlington
1. REPORT DATE 2005	2. REPORT TYPE N/A		3. DATES COVERED -		
4. TITLE AND SUBTITLE				5a. CONTRACT NUMBER	
Innovative Procurement Strategies				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Defense Acquisition University 2550 Huntington Ave Suite 202 Alexandria, VA 22303				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAIL Approved for publ	LABILITY STATEMENT ic release, distributi	on unlimited			
13. SUPPLEMENTARY NO	OTES				
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	SAR	8	RESPONSIBLE PERSON

Report Documentation Page

Form Approved OMB No. 0704-0188

INNOVATIVE PROCUREMENT STRATEGIES

David Eiband

Most organizations within the Department of Defense are searching for the means to increase savings, operate more efficiently, and produce a higher-quality product despite downsizing and shrinking budgets. However, these admirable goals can go astray leading to potentially improper procurements, while striving to meet mission requirements. Therefore, this article discusses the execution of two innovative procurement experiments that accomplished these goals specifically in the areas of research, development, test and evaluation, environment, and the evolution of strategies, their regulatory basis, and the net effect of the total experiment.

group consisting of engineers, technicians, and support specialists designed and built telemetry systems for weapons ranging from 2.75-inch rockets to 10-inch diameter hypersonic anti-radar missiles, to 5-inch diameter air-to-air missiles, to 1-inch bomb fuzes, to foreign military system evaluation. In all applications, the designs required significant procurement effort to fabricate and test systems, and when appropriate, the designs were also carried internally into prototype production. Professional technical image aside, the work could not be completed without continuing forays into the world of government procurement.

PROCUREMENT BACKGROUND

Within the government, and certainly within the Department of Defense Research, Development, Test, and Evaluation (DoD RDT&E) environment, procurements follow a common preferred evolution, and the Federal Acquisition Regulation (FAR) Part 2.101 defines procurement thresholds. When possible, procurements are first made using micro-purchase procedures, which are less than or equal to \$2,500; then small purchase procedures, which are greater than \$2,500 and no more than \$100,000; and

finally, contract procedures for all procurements greater than \$100,000. Procurement complexity, lead time, and administrative costs all increase as one ascends the hierarchy; and within the small purchase and contract ranges, complexity, lead time, and administrative costs increase at prescribed cost threshold levels. Clearly, there are advantages to keeping individual procurement costs as low as possible to avoid the noted procurement overhead, but as discussed later, there are disadvantages as well.

THE FIRST EXPERIMENT

Organizations do not change their operating philosophy without reason, and the group procurement strategy fits that mold. For years, the group used multiple \$2,500 micro-purchases to procure printed wiring boards (PWB), as well as a myriad of other classes of items. The PWBs, while very complex in this application, are essentially the easily recognized nonconducting fiberglass boards overlaid with conducting traces found in most electronic devices. Various electronic components, connectors, and wiring harnesses are attached to the traces to implement a particular design. From a technical standpoint, each PWB is unique to a peculiar system with multiple PWBs used in each system; however, the procurement system does not treat PWBs with such fidelity. From a procurement standpoint, a PWB is a PWB just like every other PWB. That perceived similarity was the genesis of the procurement change.

Using that logic, the procurement community believed that the micro-purchase agent was breaking down, more commonly referred to as *splitting*, similar PWB procurements to keep the individual procurements under the \$2,500 threshold. According to the FAR Part 13.003(c)(1)(2) definition, splitting breaks a procurement into "several purchases that are less than the applicable threshold merely to (1) permit use of simplified acquisition procedures or (2) to avoid any requirement that applies to purchases exceeding the micro-purchase threshold." The perceived splitting was, therefore, potentially a violation of the FAR. Even more critically, splitting can also have significant legal penalties under 18 U.S.C. 287 of a \$10,000 fine and/or 5 years' imprisonment. In other words, multiple buys via credit card were likely prohibited and corrective action was required to eliminate any potential violation.

With that newly found impetus, we embarked to change the PWB procurement strategy and began investigating alternatives to the commonly utilized micro-purchase approach. Because of their intentionally structured abbreviated requirements, FAR Part 13—Simplified Acquisition Procedures for Commercial Items, apparently offered the best option. This conclusion seemed obvious as simplified acquisition procedures were designed to "(a) reduce administrative costs; (b) improve opportunities for small, small disadvantaged, and women-owned small veteran-owned, HUBZone, and service-disabled veteran-owned small business concerns to obtain a fair proportion of Government contracts; (c) promote efficiency and economy in contracting, and (d) avoid unnecessary burdens for agencies and contractors (FAR Part 13.002)." Of course in the Research and Development (R&D) arena, many items were not traditionally considered commercial, and the \$100,000 limit when using simplified acquisition

procedures loomed as a significant drawback as the annual procurements easily exceeded that limit by an order of magnitude.

Fortunately, several factors improved the situation. The FAR 13.500(a) authorizes test programs greater than \$100,000, but not exceeding \$5 million for simplified acquisitions, if the proper approval could be secured. Additionally, from an administrative-overhead perspective, simplified acquisition offers no-cost local procurement department processing, an obviously attractive characteristic not necessarily available at all procurement organizations.

The major inhibitor to that approach was the FAR 13.500(c) test program requirement to purchase commercial items or supplies (in laymen terms) rather than services. Historically, the local procurement offices considered PWBs a service rather than a supply because labor was required to manufacture each PWB. A closer reading of FAR 2.101 indicated that a commercial item is by definition, "(a) any item, other than real property, that is of a type customarily used for non-governmental purposes and that (1) has been sold, leased, or licensed to the general public; or (2) has been offered for sale, lease, or license to the general public." Needless to say, PWBs are ubiquitous in modern society and clearly met the FAR definition of a commercial item. The contracting officer conceded that point, and with that agreement, the fundamental procurement approach was established.

Historically, the local procurement offices considered PWBs a service rather than a supply because labor was required to manufacture each PWB.

The opportunities garnered by this strategy greatly benefited the PWB procurement. By using a two-year contract, the administrative costs and lead time were significantly decreased in comparison to annual reprocurements. The commercial item or catalog pricing aspects of simplified acquisition allowed the contract to be limited to one page of text for the Statement of Work (SOW) by using the entire matrix of PWB combinations from the catalog instead of individual specifications. Because the contract allowed the development of government-contractor relationships over a two-year period of performance, the strategy significantly enhanced the potential for improvement and efficiency over the normal, mandatorily competed individual procurement.

Commercial item or catalog pricing also facilitated ordering via electronic media, and more importantly, allowed ordering using the government purchase card and a warranted Ordering Officer within the group. Use of the Government-Wide Commercial Purchase Card and Ordering Officer was critical because orders may be placed without resorting to a procurement contracting officer or, after delivery, to utilize the Defense Finance and Accounting System (DFAS) in compliance with FAR 13.301(a). This advantage

resulted in faster turn-around times and greatly improved contractor payment—two notably inefficient aspects of government procurement.

In the end, this contract experiment produced several startling results. A \$1.2 million procurement was awarded in 70 days rather than the nominal 260 days using normal FAR Part 15—Contracting by Negotiation, contracting procedures. The two-year contract featured fixed, published prices over the duration of the contract, and from a technical standpoint, the single order limit was raised from the \$2,500 micro-purchase limit to \$50,000 of PWBs per month. The contractor benefited from more efficient production runs that are not constrained by the micro-purchase size limit, and from a business aspect, the contractor receives payment within two days of acceptance rather than months or later after submittal to DFAS. For these reasons, the simplified acquisition procedure approach was clearly a boon for both the government and industry.

THE SECOND EXPERIMENT

Given the preceding discussion, the first experiment was obviously limited in scope to a single item type, and while the simplified acquisition approach and government purchase card payment method offered savings, the administrative overhead savings applied only to single item type procurements. The second experiment was therefore designed to significantly expand the coverage of the contract while retaining all the positive aspects identified and proven by the first experiment.

Ninety percent of all procurements within the organization consisted of electronic components and devices, clearly making that area the new target. The procurement requirement for the second experiment was structured to include classes of items ranging from simple components such as resistors, diodes, and capacitors to complete complex assemblies such as transmitters, global positioning systems (GPS), inertial navigation systems (INS), and electronic test equipment. The historical procurement of these items was over \$5 million annually and rose to \$9 million annually when a sister organization was added.

The magnitude of this effort had two immediate impacts. First, since the technical requirements would likely exceed the capability of any "small or disadvantaged business," the procurement strategy directly conflicted with the government's policy in FAR 19.201, "to provide maximum practicable opportunities in its acquisitions (Part 19.201[a])" to those same groups. In addition, the intention to maximize the benefits of multiyear contracting and therefore structure a five-year, maximum-length contract further complicated this strategy, and the resulting \$45 million contract could not escape the intense scrutiny of the small business community or their champions in the Small Business Administration (SBA).

Because simplified acquisition procedures apply to commercial item contracts worth no more than \$5 million using the FAR-authorized test program, the planned five-year, \$45 million approach created the second problem, a reliance on the more traditional combination of FAR Part 12—Acquisition of Commercial Items and Part 15—Contracting by Negotiation, procedures. Due to the nature of the procurement, this latter problem did not adversely effect the overall experiment and could not be

avoided in any event; the first problem with the small business community, however, was significant and required serious attention.

The sheer magnitude of the procurement guaranteed small business scrutiny and the consequent potential for protest; in addition, the nature of the required items themselves could be grounds for protest. Because the procurement covered a broad spectrum of items from electronic components to complete electronic assemblies, bundling became an issue. By FAR 2.101 definition, bundling is the "consolidation of two or more requirements for supplies or services, previously provided or performed under separate smaller contracts, into a solicitation for a single contract that is likely to be unsuitable for award to a small business concern due to: (i) the diversity, size, or specialized nature of the elements of the performance specified; (ii) the aggregate dollar value of the anticipated award; (iii) the geographic dispersion of the contract performance sites; or (iv) any combination of the factors described in (1)(i), (ii), and (iii)." Without a doubt, the intended procurement had the look and feel of bundling and thus was highly suspect as a viable procurement strategy. However, given the intent to truly explore the extremes of the procurement envelope, we elected to pursue a mitigating tactic that would hopefully preserve the intended strategy while satisfying the dictates of the small business regulations.

The sheer magnitude of the procurement guaranteed small business scrutiny and the consequent potential for protest...

In order to address these small business issues, we coordinated with the base Small Business Office to release a *sources sought* request to industry. The sources sought request stated the requirement and directed interested contractors to provide key data describing their capability to meet the published requirement in accordance with FAR 5.205(a). Available only to R&D programs, the sources sought option perfectly fit the needs. One hundred thirteen contractors responded with data, and the packages were evaluated against the known requirement. Only two contractors were rated *qualified* as meeting the technical requirement, but none of the 113 small business concerns met the FAR 19.502.2(c) requirement that small business suppliers must furnish products from 100 percent small business concerns.

Armed with that information, we negotiated an acceptable small business set-aside agreement with the SBA. The agreement would allow the selected small business to bid, within the noted FAR constraints, for the maximum number of items for which they qualified, and the remainder of the procurement would be awarded unrestrictedly to any qualified vendor, which could include either small and large businesses. In essence, the original procurement would consist of two separate awards, and as negotiated, the small business contractor would be allowed a 5 percent cost advantage over the large business contractor. However, because the requirement was identical whether met by

a small business or unrestricted vendor, the contract awards would vary only by the scope of materials provided and the peculiar small business clauses unique to a small business contract.

In the end, the second experiment performed very much as the original had. The final contract allowed product ordering without using the procurement department or a procurement contracting officer; the government purchase card system paid the contractor after the acceptance of each order; and most importantly, the contract covered the universe of electronic requirements over a five-year contract period. When one considers that the group averaged over 750 procurement actions annually, this single contract was a manifold improvement in reducing acquisition overhead costs and time delays.

Processing the contract did not, however, proceed as quickly as had the original procurement. First, the sources sought and SBA approval efforts required 90 days to accomplish, but that delay can be fully avoided on future procurements as the answer is generically appropriate to any other similar procurement. Second, no \$45 million program will quickly advance through either the procurement or management approval process, and it did not. In fact, the entire process required over 17 months from initiation to source selection.

CONCLUSIONS

This paper reports the results of two experiments in government procurement. The experiments were evolutionary in nature with the second procurement growing upon the successful results of the first. As was noted, the procurements tested the ability of the FAR to optimally meet the requirements of the RDT&E environment, the patience of the procurement system in addressing and eventually accepting innovative concepts, and the professionalism of the disparate technical and procurement communities in accomplishing a very different but mutually beneficial goal.



David Eiband is Professor of Systems Engineering with the Defense Acquisition University and has worked with manned and unmanned aircraft, rocket, and missile programs during his career. He earned a bachelor's degree at the U.S. Air Force Academy and a master's degree at the University of Texas at Austin. Mr. Eiband holds three U.S. patents and is a former U.S. Air Force pilot.

(E-mail address: Dave.eiband@dau.mil)

REFERENCES

- Federal Acquisition Regulation. (2000, January 1). *Definition of words and terms* (FAR 2.101). Chicago: CCH, Inc.
- Federal Acquisition Regulation. (2000, January 1). *Publicizing contract actions* (FAR 5.205). Chicago: CCH, Inc.
- Federal Acquisition Regulation. (2000, January 1). *Acquisition of commercial items* (FAR 12). Chicago: CCH, Inc.
- Federal Acquisition Regulation. (2000, January 1). *Simplified acquisition procedures* (FAR 13.002, 13.003, 13.301, 13.500). Chicago: CCH, Inc.
- Federal Acquisition Regulation. (2000, January 1). *Contracting by negotiation* (FAR 15). Chicago: CCH, Inc.
- Federal Acquisition Regulation. (2000, January 1). *Small business programs* (FAR 19.201, 19.502-2). Chicago: CCH, Inc.
- 18 U.S.C. § 287. (2002, January 24). False, ficticious or fraudulent claims. Retrieved on September 14, 2005, from http://frweb2.access.gpo.gov/cgi-bin/waisgate.cgi? WAISdocID=699329139103+0+0+0&WAISaction=retrieve